IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strikethrough~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please CANCEL claims 7-11 and AMEND claims 1-8 and 12 in accordance with the following:

1. (currently amended) A failure detecting apparatus for detecting network failures, based on information obtained from ~~a~~ monitor target equipment which is disposed within a communication network and which has a plurality of communication interfaces, comprising:

a storage device storing traffic flow information indicating both an amount of receiving traffic and an amount of transmitting traffic in each interface of the monitor target equipment;

a computation device computing an amount of abnormal traffic using a virtual point set in the monitor target equipment as at least one of a start point and an end point, ~~of~~ among a plurality of segments of traffic inside the monitor target equipment using the traffic flow information, and outputting an obtained flow as the amount of abnormal traffic; and

determination device determining whether there is a network failure, using the amount of abnormal traffic, thereby outputting a determined result.

2. (currently amended) A computer-readable storage medium ~~on which~~ encoded with a computer program ~~for enabling~~ that when executed causes a computer to execute a method that detects network failures, based on information obtained from ~~a~~ monitor target equipment which is disposed within a communication network and which has a plurality of communication interfaces, said ~~program~~ method comprising:

extracting traffic flow information indicating both an amount of receiving traffic and an amount of transmitting traffic in each interface of the monitor target equipment, from a storage device of the computer;

computing an amount of abnormal traffic using a virtual point set in the monitor target equipment as at least one of a starting point and an end, ~~of~~ among a plurality of segments of traffic inside the monitor target equipment, using the traffic flow information; and

determining whether there is a network failure, using the ~~obtained~~ amount of the abnormal traffic.

3. (currently amended) The computer-readable storage medium according to claim 2, wherein said ~~program enables the computer to compute~~ computing includes computing at least one of ~~an~~ a first amount of traffic of data generated by and outputted from the monitor target equipment, ~~an~~ a second amount of traffic of data discarded by the monitor target equipment and ~~an~~ a third amount of traffic of data transmitted to and from ~~the same~~ a single interface ~~after being received, of an interface~~ of the monitor target equipment, as the amount of abnormal traffic.

4. (currently amended) The computer-readable storage medium according to claim 2, wherein said ~~program enables the computer to compute~~ computing includes computing a ratio of the amount of abnormal traffic to a total amount of the traffic inside the monitor target equipment, and to determine that there is a network failure if the ratio of the amount of abnormal traffic exceeds a predetermined threshold value.

5. (currently amended) The computer-readable storage medium according to claim 2,

wherein said ~~program enables the computer to provide~~ method further comprises setting a virtual point indicating ~~an~~ the end or ~~a~~ the starting point of the traffic inside the monitor target equipment, and ~~to compute an amount of~~

wherein said computing computes a first traffic flow using each interface and ~~anther~~ another interface as a starting point and an end, respectively, of the traffic inside the monitor target equipment, a ~~flow rate of~~ second traffic flow using each interface and the virtual point as ~~a~~ the starting point and ~~an~~ the end, respectively, ~~an amount of~~ a third traffic flow using the virtual point and each interface as ~~a~~ the starting point and ~~an~~ the end, respectively, and ~~an amount of~~ a fourth traffic flow using each interface ~~and the same interface~~ as ~~a~~ both the starting point and ~~an~~ the end, ~~respectively,~~ and ~~to~~ computes a first total ~~of the respective amounts~~ of the second, third and fourth traffic flows as the amount of abnormal traffic.

6. (currently amended) The computer-readable storage medium according to claim 5,

wherein said ~~program enables the computer to compute~~ computing includes computing a ratio of the amount of abnormal traffic to a second total ~~of the respective amounts~~ of the first, second, third and fourth traffic flows, and to

wherein said determining determines that ~~there is a~~ the network failure exists if the ratio of the amount of abnormal traffic exceeds a predetermined threshold value.

Claims 7-11 (cancelled)

12. (currently amended) A failure detecting apparatus for detecting network failures, based on information obtained from monitor target equipment which is disposed within a communication network and which has a plurality of communication interfaces, comprising:

storage means for storing traffic flow information indicating both an amount of receiving traffic and an amount of transmitting traffic in each interface of the monitor target equipment;

computation means for computing an amount of abnormal traffic using a virtual point set in the monitor target equipment as at least one of a start point and an end point, ~~of~~ among a plurality of segments of traffic inside the monitor target equipment using the traffic flow ~~rate~~ information, and outputting ~~the~~ an obtained flow as the amount of abnormal traffic; and

determination means for determining whether there is a network failure, using the amount of abnormal traffic, thereby outputting a determined result.